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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,170	08/27/2003	Randy G. Forshey	BOC 715	5965
7590	10/05/2004		EXAMINER MACK, COREY D	
Robert Moll 1173 St. Charles Court Los Altos, CA 94024			ART UNIT 2855	PAPER NUMBER

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,170

Applicant(s)

FORSHEY ET AL.

Examiner

Corey D. Mack

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,8,9,11,12,14 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,5,7,10,13,15,16 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 6, 8, 9, 11, 12, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin, et al. (US 6,484,565).

A. With respect to Claims 1 and 11, Shin discloses a system for measuring flow rate of a liquid, comprising: a collection vessel 26 coupled to a supply valve 68; a weir 34 providing a passage for the liquid into the collection vessel, wherein the liquid travels from the bottom to the top of the weir and overflows into the collection vessel (See Fig. 12A); a load cell 28 coupled to the collection vessel and generating a load cell signal indicating the mass of the collection vessel with the collected liquid; and a controller 30 converting the load cell to indicate 74 the liquid flow rate into the collection vessel (column 7, lines 11-34; column 1, lines 33-42; column 13, lines 59-62). Shin does not disclose a drain valve. However, drain valves are well-known by those of ordinary skill in the art in order to control fluid levels in fluid containers. (See MPEP § 2144.03). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to include in Shin a drain valve in order to control the fluid level in the collection vessel.

B. With respect to Claims 2 and 12, Shin discloses the valve 68 is controllable by actuation in response to electronic signals from the controller 30.

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C. With respect to Claims 4 and 14, Shin discloses the claimed invention, except they do not disclose a gas pressure sensor. Shin does disclose measuring the pressure drop along the weir 24 in order to measure flow rate (column 11, lines 44-60). It would have been obvious to one of ordinary skill in the art to use a pressure sensor in a closed container environment to measure pressure. (See MPEP § 2144.03). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to include a pressure sensor in order to measure gas pressure in a closed container in order to accurately calculate flow rate.

D. With respect to Claim 6, Shin discloses that the weir includes a tube 34 wherein the top of the weir is above the bottom of the collection vessel (See Fig. 12A).

E. With respect to Claim 8, Shin discloses that the load cell signal is a digital signal (column 7, lines 23-29).

F. With respect to Claims 9 and 17, Shin discloses that the controller 30 samples the load cell signal after a stabilization period (resets) and converts the load cell signals to indicate liquid flow rate into the collection vessel 26.

Allowable Subject Matter

3. Claims 3, 5, 7, 10, 13, 15, 16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey D. Mack whose telephone number is (571) 272-2181. The examiner can normally be reached on M-F, 8:30-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CDM

Corey D. Mack, Esq.
Patent Examiner
Art Unit 2855

September 29, 2004


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800